

TABLE 2.—Minimum temperatures on clear nights in cotton region and fruit region instrument shelters at Medford, Oreg.

Date.	Cotton region.	Fruit region.	Departure.
1919.	° F.	° F.	° F.
April 7.....	28.4	29.0	+0.6
8.....	27.4	28.0	+0.6
11.....	28.0	28.9	+0.9
12.....	31.7	32.1	+0.4
14.....	28.6	27.0	+0.4
20.....	30.8	31.1	+0.3
26.....	31.9	32.1	+0.2
May 4.....	32.9	33.1	+0.2
5.....	32.0	32.7	+0.7
10.....	32.5	33.2	+0.7
13.....	33.0	33.6	+0.6
1920.			
April 11.....	31.8	31.8	0.0
14.....	34.9	34.9	0.0
16.....	35.0	35.0	0.0
17.....	33.6	33.7	+0.1
18.....	27.0	26.9	-0.1
20.....	32.0	32.0	0.0
22.....	28.4	28.1	-0.3
23.....	26.0	26.1	+0.1
24.....	29.5	30.0	+0.5
25.....	31.6	32.0	+0.4
29.....	34.0	34.0	0.0
May 2.....	32.5	32.8	+0.3
3.....	31.0	31.4	+0.4
4.....	31.1	31.4	+0.3

TABLE 3.—Simultaneous current-temperature observations inside and outside fruit region instrument shelter at Medford, Oreg.

Date and time.	Shelter temperature.	Air temperature.	Departure.	Clouds.	Dew point.
	° F.	° F.	° F.	Amount.	Kind.
1919.				0-10.	
Apr. 6-7:					
3:43 p. m.....	56.0	56.0	0.0	6	Cu.....
4:48 p. m.....	52.2	52.1	-0.1	6	Cu.....
6:46 p. m.....	47.7	48.5	+0.8	6	Cu.....
7:20 p. m.....	46.4	45.7	+0.7	7	Cu.....
8:25 p. m.....	42.8	44.1	+1.3	4	Cu.....
8:58 p. m.....	42.1	43.0	+0.9	3	Cu.....
9:28 p. m.....	41.0	42.1	+1.1	1	St. Cu.....
9:59 p. m.....	40.0	40.0	0.0	0	Cu.....
12:42 a. m.....	33.9	35.3	+1.4	0	St.....
5:55 a. m.....	32.9	33.3	+0.4	5	St.....
Apr. 7-8:					
4:51 p. m.....	57.2	57.3	+0.1	8	Cl. St.....
5:33 p. m.....	54.1	54.2	+0.1	2	Cu.....
7:25 p. m.....	46.6	46.6	0.0	0	0.....
12:05 a. m.....	34.9	35.8	+0.9	0	0.....
12:31 a. m.....	34.0	35.0	+1.0	0	0.....
12:59 a. m.....	33.2	34.1	+0.9	0	0.....
1:30 a. m.....	32.5	33.8	+1.3	0	0.....
2:02 a. m.....	32.1	33.0	+0.9	0	0.....
5:57 a. m.....	28.2	29.7	+1.5	3	St.....
Apr. 10-11:					
4:45 p. m.....	57.5	57.9	+0.4	6	Cu.....
5:50 p. m.....	55.0	54.7	-0.3	5	Cu.....
6:40 p. m.....	52.2	52.0	-0.2	4	Cu.....
7:38 p. m.....	47.4	47.5	+0.1	3	Cu.....
8:01 p. m.....	45.9	46.0	+0.1	3	Cu.....
11:30 p. m.....	36.4	38.0	+1.6	3	Cl. St.....
12:29 a. m.....	34.8	35.4	+0.6	2	Cl. St.....
1:04 a. m.....	33.9	34.7	+0.8	0	Cl. St.....
6:29 a. m.....	29.9	32.0	+2.1	0	0.....
Apr. 11-12:					
4:44 p. m.....	63.0	62.2	-0.8	10	Cl. St.....
5:47 p. m.....	61.1	61.0	-0.1	3	Cl. St.....
7:06 p. m.....	53.0	52.0	-1.0	3	Cl. St.....
7:38 p. m.....	49.1	49.8	+0.7	3	Cl. St.....
8:08 p. m.....	48.0	48.9	+0.9	4	Cl. St.....
8:50 p. m.....	46.0	47.2	+1.2	5	Cl. St.....
2:07 a. m.....	37.0	38.0	+1.0	6	Cl. St.....
2:58 a. m.....	35.0	35.8	+0.8	1	Cl. St.....
3:30 a. m.....	34.0	35.8	+1.8	0	0.....
Apr. 19-20:					
3:43 p. m.....	53.8	54.2	+0.4	9	St. Cu.....
4:47 p. m.....	54.1	54.0	-0.1	9	St. Cu.....
5:51 p. m.....	52.6	53.0	+0.4	6	St. Cu.....
7:23 p. m.....	49.9	50.2	+0.3	3	St. Cu.....
8:34 p. m.....	45.0	45.4	+0.4	1	Cu.....
9:00 p. m.....	44.1	45.0	+0.9	Few.	St. Cu.....
9:28 p. m.....	42.8	44.1	+1.3	Few.	St. Cu.....
9:59 p. m.....	41.3	42.2	+0.9	Few.	St. Cu.....
10:27 p. m.....	41.6	43.0	+1.4	0	0.....
11:03 p. m.....	40.2	41.2	+1.0	0	0.....
3:21 a. m.....	33.7	34.3	+0.6	0	0.....
5:44 a. m.....	31.1	32.5	+1.4	3	St. Cu.....
May 4-5:					
3:38 p. m.....	78.0	74.8	-3.2	0	0.....
4:38 p. m.....	75.9	75.8	-0.1	0	0.....
5:29 p. m.....	73.8	73.0	-0.8	0	0.....
6:32 p. m.....	67.6	67.0	-0.6	0	0.....
8:31 p. m.....	56.0	55.4	-0.6	0	0.....
8:57 p. m.....	53.0	53.0	0.0	0	0.....
2:43 a. m.....	36.8	38.3	+1.5	0	0.....
6:45 a. m.....	41.0	42.2	+1.2	0	0.....

Shelter temperature is current reading of minimum thermometer inside instrument shelter. Air temperature is reading of dry-bulb thermometer of sling psychrometer after whirling.

TABLE 4.—Simultaneous current-temperature observations inside and outside fruit region instrument shelter at Pomona, Calif.

Date and time.	Shelter temperature.	Air temperature.	Departure.	Clouds.	Dew point.
	° F.	° F.	° F.	Amount.	Kind.
1918.				0-10.	
Dec. 23-24:					
7:10 p. m.....	35.0	36.0	+1.0	0	0
7:40 p. m.....	35.0	35.6	+0.6	0	0
8:12 p. m.....	33.4	34.3	+0.9	0	0
8:41 p. m.....	32.2	32.7	+0.5	0	0
9:07 p. m.....	31.4	32.2	+0.8	0	0
9:39 p. m.....	31.9	32.5	+0.6	0	0
10:08 p. m.....	30.2	30.6	+0.4	0	0
10:38 p. m.....	31.9	35.0	+3.1	0	0
11:07 p. m.....	30.9	30.9	0.0	0	0
11:39 p. m.....	30.1	30.8	+0.7	0	0
12:07 a. m.....	30.0	30.2	+0.2	0	0
12:42 a. m.....	29.7	30.0	+0.3	1	A. St.
1:10 a. m.....	29.1	30.1	+1.0	1	A. St.
1:37 a. m.....	28.8	29.2	+0.4	0	0
2:10 a. m.....	29.3	31.9	+2.6	0	0
2:37 a. m.....	29.1	30.0	+0.9	0	0
3:06 a. m.....	28.7	29.8	+1.1	0	0
3:35 a. m.....	28.6	29.7	+1.1	0	0
4:06 a. m.....	27.5	28.5	+1.0	0	0
4:35 a. m.....	26.7	27.9	+1.2	0	0
5:05 a. m.....	26.8	27.2	+0.4	0	0
5:37 a. m.....	26.0	26.8	+0.8	0	0
6:07 a. m.....	25.9	26.7	+0.8	0	0
6:38 a. m.....	25.8	27.1	+1.3	0	0
7:06 a. m.....	25.4	26.6	+1.2	0	0
1919.					
Nov. 27-28:					
6:43 p. m.....	37.5	37.6	+0.1	5	St.
7:36 p. m.....	35.0	35.4	+0.4	0	0
8:27 p. m.....	35.4	37.1	+1.7	0	0
8:57 p. m.....	33.4	33.7	+0.3	0	0
9:27 p. m.....	31.8	31.7	-0.1	0	0
10:26 p. m.....	29.5	31.0	+1.5	0	0
11:27 p. m.....	29.9	31.0	+1.1	0	0
4:43 a. m.....	26.2	27.6	+1.4	0	0
Dec. 13-14:					
6:30 p. m.....	40.1	42.1	+2.0	0	0
6:56 p. m.....	39.7	40.7	+1.0	1	Cl.
7:27 p. m.....	39.0	41.0	+2.0	0	0
7:57 p. m.....	37.9	38.8	+0.9	0	0
8:27 p. m.....	35.4	36.2	+0.8	0	0
8:58 p. m.....	34.2	35.6	+1.4	0	0
1:27 a. m.....	32.8	34.1	+1.3	1	Cl.
1:54 a. m.....	32.1	33.6	+1.5	2	Cl. St.
4:26 a. m.....	32.3	34.1	+1.8	9	Cl. St.

Shelter temperature is current reading of minimum thermometer inside instrument shelter. Air temperature is reading of dry-bulb thermometer of sling psychrometer after whirling.

TABLE 5.—Minimum temperatures in various locations in lemon trees and in fruit-region shelter.

Date.	Station numbers. <sup>1</sup>					
	1	2	3	4	5	6
1917.	° F.	° F.	° F.	° F (shelter.)	° F.	° F.
Dec. 18.....	37.0	36.9	37.0	37.0	37.0	37.0
19.....	38.5	38.0	38.1	38.1	38.5	38.9
20.....	34.5	34.0	34.2	34.2	34.6	35.0
21.....	36.9	36.6	36.9	36.9	37.0	37.8
22.....	32.5	32.0	32.6	32.6	32.8	33.0
23.....	37.9	37.5	38.0	37.9	38.0	38.0
24.....	42.9	42.2	42.9	42.5	42.9	43.5
25.....	36.0	35.2	35.6	35.4	35.9	36.0
26.....	34.9	34.0	34.1	34.8	34.5	35.1
27.....	33.9	33.1	33.6	34.0	34.0	33.9
28.....	37.6	37.0	37.1	37.1	37.8	38.0
29.....	35.0	35.5	35.5	35.5	35.9	36.0
30.....	37.0	36.8	37.2	37.0	37.5	38.9
31.....	34.9	34.3	34.9	33.8	35.0	35.0
1918.						
Jan. 1.....	34.0	33.8	34.0	34.5	34.1	35.0
2.....	31.0	30.3	30.3	31.0	31.2	31.9
Average.....	35.9	35.4	35.8	35.8	36.0	36.4

<sup>1</sup> See fig. 3.

## DIFFERENCES BETWEEN THE READINGS OF SHELTERED AND UNSHELTERED THERMOMETERS IN FIELD WORK.

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[Presented before the American Meteorological Society at Chicago, Dec. 29, 1920.]

(Author's abstract.)

The subject of the exposure of thermometers in the field should always be given careful consideration, and

